broken lines are moving for refuge in the direction b, when the system control circuit **900** starts operating, the third pickup unit **300** and the fourth pickup unit **400** move in the direction b of FIG. **2** maintaining the stacked state indicated by solid lines. When the third pickup unit **300** reaches the position indicated by dot-dash lines of FIG. **2**, the stack stops and the third pickup unit **300** pulls out the disc **2***c* while recording or reproducing the same. Then the third pickup unit **300** moves to the position indicated by broken lines to stop there. The fourth pickup unit **400** that has been brought by this operation to the position indicated by dot-dash lines pulls in the disc **2***d*, loads the same between a turntable **402** and damper **403**, fast rotates the disc, causes a fourth pickup **404** to scan in the radial direction of the disc, and performs known tracking servo and focus servo, recording or reproducing the disc **2***d*. Also in the constitution where the four pickup units are used, the first and second pickup units **100** and **200** are stacked on one hand and the third and fourth pickup units **300** and **400** are stacked on the other hand for movement. Consequently, the embodiment of the FIG. **2** also enhances the speed of disc handling operation as compared with the conventional constitution. It should be noted that the embodiment of FIG. **2** also provides the same stable operation as that of the embodiment of FIG. **1** for the same reason, and therefore the description with respect to the stable operation is omitted herein.

Next, the disc apparatus practiced as still another preferred embodiment of the invention will be described with reference to FIG. **3**.

The embodiment of FIG. **3** is a disc apparatus capable of reproducing both sides of a disc. This embodiment comprises two pickup units **100** and **200**, the magazine **1**, and the system control circuit **900** among others. The pickup unit **100** is the first pickup unit of FIGS. **1** and **2** that records or reproduces the disc **1***c*. The pickup unit **200** is the second pickup unit for both-side reproduction and comprises a pickup **304** for recording or reproducing the upper recording area, not shown, of the disc **1***d*, a pickup **204** for recording or reproducing the lower recording area, not shown, of the disc **1***d*, and control circuits **307** and **207**. The other components are generally the same as those of FIGS. **1** and **2**, denoted by the same reference numerals, and omitted from the description herein.

Referring to FIG. **3**, when the second pickup unit **200** is located at the position indicated by broken lines and the first pickup unit **100** is located at the position indicated by solid lines below the second pickup unit, if a command comes instructing the continuous reproduction of the discs **1***d* and **1***c*, the system control circuit **900** first controls the disc loader **270** such that the disc **1***d* is loaded in the second pickup unit **200**, then controls the control circuits **207** and **307** such that the disc **1***d* is recorded or reproduced at the lower and upper sides thereof by the pickups **204** and **304**, respectively, for both-side reproduction. Then, the system control circuit **900** controls the pickup unit drive **180** such that the first pickup unit **100** is moved in the direction a to load the disc **1***c* in the first pickup unit **10** (and record and reproduce the disc lc. At this time, too, the system control circuit **900** control circuit the controls **207** and **307** such that the two-side d reproduction of the disc **1***d* is continued and, at the same time, controls the pickup unit drive **280** such that the second pickup unit **200** moves in the direction a. This also contributes to the enhanced speed of disc handling operations ranging from the entry of the command up to the continuous reproduction of the discs **1***d* and **1***c* like the cases of FIGS. **1** and **2**.

The disc apparatus practiced as yet another preferred embodiment of the invention will be described with reference to FIG. **4**.

The constitution of FIG. **4** is generally the same as that of FIG. **3**. A difference lies in that the constitution of FIG. **4** stores each of two-side discs **3***a*, **3***d*, **3***g*, and **3***j* in a dedicated cartridge. Namely, referring to FIG. **4**, reference numerals **10***a*, **10***d*, **10***g*, and **10***j* indicate cartridges, which are formed by shutters **11***a*, **11***d*, **11***g*, and **11***j* respectively, and each shutter opens or closes a window, not shown. A magazine **1** contains these disc cartridges **10***a*, **10***d*, **10***g*, and **10***j* together with the discs **1***a* through **1***j*. Reference numeral **200** indicates a second pickup unit in which the cartridge **10***a*, **10***d*, **10***g*, or **10***j* is loaded. Like the constitution of FIG. **3**, the pickup unit **200** comprises a pickup **304** for recording or reproducing the upper side of the two-side d disc **1***d* and a pickup **204** for recording or reproducing the lower side of the disc **1***d*. The other components are generally the same as those of the embodiment of FIG. **3**, denoted by the same reference numerals, and omitted from the description herein.

In operation, when the second pickup unit **200** is at the position indicated by broken lines at the center position of the disc apparatus and the first pickup unit **100** is at the position indicated by solid lines in the lower portion of the disc apparatus as shown in FIG. **4**, if a command comes instructing the continuous reproduction of the discs **3***d* and **1***c* in the cartridge, the system control circuit **900** first controls a cartridge loader **271** such that the cartridge **10***d* is loaded in the second pickup unit **200**. When the cartridge **10***d* has been loaded to open the shutter **11***d*, the system control circuit **900** controls the control circuits **207** and **307** such that the disc **3***d* stored in the cartridge **10***d* is recorded or reproduced at the lower side and the upper side thereof by the pickup **204** and the pickup **304**, respectively, for both-side reproduction. Then the system control circuit **900** controls the pickup unit drive **180** such that the first pickup unit **100** is moved in the direction a of FIG. **3** to load the disc **1***c* in the first pickup unit **100** to be recorded or reproduced. At this time, too, the system control circuit **900** controls the control circuits **207** and **307** such that the both-side reproduction of the disc **3***d* in the cartridge is continued and, at the same time, controls the pickup unit drive **280** such that the second pickup unit **200** is moved in the direction a of FIG. **3** for refuge. This also contributes to the enhanced speed of disc handling operations ranging from the entry of the command to the continuous reproduction of the discs **3***d* and **1***c* like the case of FIG. **3**.

The disc apparatus practiced as a different preferred embodiment will be described with reference to FIGS. **5** and **6**.

FIG. **6** shows schematic views of the disc apparatus. To be specific, FIG. **6** (A) shows a constitution of the disc apparatus according to the invention in which discs are stacked perpendicular to the bottom surface **1000** of the apparatus, each of the discs facing the bottom. FIG. **6** (B) shows another constitution in which discs are stacked along the bottom surface **1000** of the apparatus, or each of the discs facing sides of the apparatus. **10** The constitutions of the preferred embodiments shown in FIGS. **1** through **4** are of the constitution of FIG. **6** (A). It will be apparent that the disc apparatus according to the present invention is restricted to the constitution of FIG. **6** (A). The constitution of FIG. **6** (B) is also possible and the embodiment of FIG. **5** is based on that constitution.

Now, referring to FIG. **5**, this constitution has all of the components of that of FIG. **1**. The lies only in the orientation of the disc stack; that is, the disc stack runs along the bottom surface **1000** of the disc apparatus. In function, the embodiment of FIG. **5** is basically the same as that of FIG. **1**. That is, a system control circuit **900** performs control such that